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ABSTRACT

Arranged in five sections, this annotated bibliography cites over 40 introductory level resources on astronomy published between 1972 and 1981. A note on the availability of these resources precedes sections covering general introductory books, magazines featuring non-technical articles, general books for readers with slight background, recommended books on special topics, and books for observing projects. With the exception of magazine citations, all sections are arranged alphabetically by author. (LP)

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EXPLORING THE UNIVERSE
Introductory Readings in Astronomy
by Andrew Fraknoi

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NOTE: Books marked with a (***) are available at a discount through the A.S.P. Selectory. To get a free copy of this illustrated catalog, send a large self-addressed, stamped envelope to: Catalog Dept. C at ASP address (over).

1. General Introductory Books (written for people with very little background in astronomy)

Ferris, T.: Galaxies (1980, Sierra Club Books, large "coffeetable" book, hardbound) -- Possibly the most beautiful astronomy book ever published, this impressive and eloquently-written volume is a fine introduction to the grandeur of the universe at large (***)

Friedman, H.: The Amazing Universe (1975, National Geographic) -- lavishly illustrated, clear introduction to the way astronomy is done today

Goldsmith, D.: What Is a Star? (1979, Interstellar Media) -- elementary introduction to the most frequently asked questions about our modern understanding of the universe -- recommended for youngsters and beginners (***)

Jastrow, R.: Red Giants and White Dwarfs (2d ed, 1979, Norton) -- a very simple and straightforward explanation of "cosmic evolution" from the origin of the universe to the emergence of intelligent life

Kaufmann, W.: Planets and Moons, Stars and Nebulas, Galaxies and Quasars (1979, Freeman, paperbound) -- 3-volume layperson's introduction to modern astronomy

Sagan, C.: The Cosmic Connection (1973, Dell, paperbound) -- superbly written personal account of man's place in the universe, with an emphasis on the question of life on other worlds

Sagan, C.: Cosmos (1980, Random House, hardbound) -- illustrated transcript and expansion of the popular PBS television series; a highly personal voyage through the universe written with contagious enthusiasm

2. Magazines Featuring Non-Technical Articles on Astronomy

A. Astronomy Magazines

Mercury (the journal of the Astronomical Society of the Pacific)
Sky and Telescope (published by Sky Publishing Company)
Astronomy (published by Astro-Media Corporation)

B. General Science Magazines (feature occasional astronomy pieces)

Science 82 (published by the American Association for the Advancement of Science)

Discover	Smithsonian	
Science News	National Geographic	
Natural History	Scientific American	(somewhat more technical)
OMNI	American Scientist	(somewhat more technical)

3. General Books (somewhat more background required)

Mitton, S., ed.: The Cambridge Encyclopedia of Astronomy (1977, Crown) -- a mammoth one-volume reference work; nicely done

Murdin, P., et al.: Catalogue of the Universe (1979, Crown Publ.) -- thoroughly illustrated catalog of the various objects astronomers have discovered

Shipman, H.: Black Holes, Quasars and the Universe (2d ed, 1980, Houghton-Mifflin, paperbound) -- well considered and clearly written discussion of three very exciting areas of current research; good introduction to how astronomers approach their work

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4. Good Books on Specialized Topics

Beatty, J., et al: The New Solar System (1981, Sky Publ) -- anthology of expert articles on our understanding of the planets and smaller bodies in light of the space program

Berendzen, R., et al.: Man Discovers the Galaxies (1976, Neale Watson, paperbound) -- a generously illustrated history of modern galactic astronomy, which highlights the human side of scientific discovery

Bok, B. & P.: The Milky Way, 5th ed. (1981, Harvard Univ. Press) -- classic introduction to our galaxy, recently updated (***)

Cohen, Martin: In Quest of Telescopes (1980, Sky Publ) -- how astronomy is done at the major observatories

Clayton, D.: The Dark Night Sky: A Personal Adventure in Cosmology (1976, Quadrangle) -- the author interweaves the history of cosmology with the story of his own development as an astronomer. Good explanations of a number of topics in early and modern cosmology

Eddy, J.: A New Sun (1979, NASA SP-402) -- beautifully illustrated look at the Sun from Earth and space (***)

Ferris, T.: The Red Limit (1977, Bantam paperback) -- a science journalist's well written survey of cosmology

Goldsmith, D. and Owen, T.: The Search for Life in the Universe (1980, Benjamin/Cummings) -- a clear text on a popular topic

Harrison, E.: Cosmology - The Science of the Universe (1981, Cambridge Univ. Press) -- clear, logical, only slightly technical introduction to the science and philosophy of thinking about the unverse (***).

Kaufmann, W.: Black Holes and Warped Spacetime (1979, Freeman, paperbound) -- excellent introduction to black holes (***)

Kaufmann, W.: Cosmic Frontiers of General Relativity (1977, Little, Brown; paperbound) -- Kaufmann successfully meets the challenge of explaining space-time curvature, black and white holes and related topics without the use of mathematics (more detailed than above)

Morrison, D. and Samz, J.: Voyage to Jupiter (1980, NASA SP-439) -- excellent, non-technical introduction to the Voyager mission, illustrated with dozens of full color photos. Also Voyages to Saturn (1982, NASA SP-451) (***)

Silk, J: The Big Bang (1980, Freeman, paperbound) -- a challenging, but authoritative text about the large-scale behavior of the universe

5. Books for Observing Projects

Brown, S.: All About Telescopes (1976, Edmund Scientific) -- a hobbyist's guide

Burnham, R.: Burnham's Celestial Handbook (1978, Dover Books) -- three-volume observer's guide; 2138 pp of information, by constellation

Levitt, I. and Marshall, R.: Star Maps for Beginners (1980, Fireside) -- simple maps and observing guide

Royal Astronomical Society of Canada: Observer's Handbook -- yearly compendium of what will happen in the sky; the amateur astronomer's "Bible" (1981 and later editions available through the Astronomical Society of the Pacific ***)

Satterthwaite, G., et al.: Norton's Star Atlas, 17th ed. (1978, Sky Publ.) -- the standard reference atlas for observing

Sherrod, P.: A Complete Manual of Amateur Astronomy (1981, Prentice Hall) -- the best introduction to meaningful observing projects for serious amateurs (***)

Whitney, C.: Whitney's Star Finder (1977, A. Knopf) -- clear simple introduction to things in the sky

Courtesy:

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